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| 10/553,372      | 10/17/2005  | Haymo Katschorek     | 1093-139 PCT/US     | 3688             |

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08/20/2008

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| EXAMINER |
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DUONG, TAI V

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| ART UNIT | PAPER NUMBER |
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2871

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/553,372 | <b>Applicant(s)</b><br>KATSCHOREK ET AL. |  |
|                              | <b>Examiner</b><br>TAI DUONG         | <b>Art Unit</b><br>2871                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/05;7/30/07;1/31/08;8/4/08</u> . | 6) <input type="checkbox"/> Other: ____.  |



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Acknowledgment is made of applicant's claim for foreign priority. It is noted, however, that a copy of the certified copy of the priority document (DE 103 18 157.1) has *not* been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference number **64** (Fig. 6d) and the reference number **63** (Fig. 6e). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 1, 4, 14 and 23 are indefinite because the intended scope of the claims is unclear. In these claims, it is unclear whether the broad recitation or the narrow recitation is a limitation. In the present instance, claim 1 recites the broad recitation "A film", and the claim also recites "*in particular* an embossing film, a laminating film or a sticker film" which is the narrow recitation. The same issue is applied to the broad recitation "for producing an optical diffraction effect" and the narrow recitation "*in particular* for producing a hologram" of claim 4. The same issue is applied to the broad recitation "one of the layers" and the narrow recitation "*in particular* the liquid crystal layer" of claim 14. The same issue is also applied to the broad recitation "a reflecting layer" and the narrow recitation "*in particular* a metallic layer or an HRI layer" of claim 23. Regarding claim 25, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d). In claim 15, the recited feature "the structured layer" lacks antecedent basis. In claim 22, the recited feature "the transfer film" lacks antecedent basis. In claim 27, the recited feature "the LCP material" lacks antecedent basis. The remaining claims are also rejected since they depend on the indefinite claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 13-16, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 336 874 (EP'874) in view of EP 1 203 968 (EP'968) cited by Applicant.

The EP'874 reference discloses in paragraphs [0001] and [0022]–[0044] a film or an optical security element comprising a carrier layer, a replication layer (the embossed surface of the first substrate) and a release layer, wherein the film further comprises a layer of a liquid crystal material, which is applied to the replication layer, and wherein a grating structure is embossed into the surface of the substrate (replication layer), which is towards the layer of a liquid crystal material, for orientation of the liquid crystal material, the grating structure having at least two partial regions with different directions of orientation of the embossed structure and liquid crystal molecules of the layer of a liquid crystal material are oriented in accordance with the grating structure. The liquid crystal layer is of region-wise differing thickness due to the grating structure. Thus, the only difference between the film/element of the EP'874 reference and that of the instant is a diffractive structure being embossed to the replication layer (the substrate). The EP'968 reference discloses that it was known to employ a replication layer having a diffractive structure for imparting diffractivity to the liquid crystal layer (paragraphs [0050]–[0053]). Thus, it would have been obvious to a person of ordinary skill in the art in view of the EP'968 reference to employ a diffractive structure being embossed to the replication layer (the substrate) in the film/element of the EP'874 reference for imparting diffractivity to the liquid crystal layer to achieve viewing angle -dependent interplay of colors in security applications. Also, it would have been obvious to a person of ordinary

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skill in the art to arrange the release layer between the carrier layer and the replication layer for the ease of removing the carrier layer to reduce the overall thickness of the security element.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 2-12, 24, 26 and 27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 2-12 and 24 are allowed over the prior art of record. None of the prior art discloses or suggests a film having the structure, as recited in claim 1, *in combination* with the particular structure of the diffractive structure, as recited in claims 2-12 and 24.

Claims 26 and 27 are allowed over the prior art of record. None of the prior art discloses or suggests an optical security element having the structure, as recited in claim 25, *in combination* with the particular structure of the two-part or multi-part security element, as recited in claims 26 and 27.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

TD  
08/08

/Dung Nguyen/  
Primary Examiner, Art Unit 2871

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